



Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

Division of Oil and Gas

Indiana Government Center South
402 West Washington Street, W293
Indianapolis, IN 46204

Herschel L. McDivitt

Director

317-232-4058

hmcdivitt@dnr.in.gov

MEMORANDUM 2009-1A

To: All Indiana Coal Owners and Operators
From: Herschel McDivitt, Director, Division of Oil and Gas
Bruce Stevens, Director, Division of Reclamation
Date: July 9, 2009
Subject: Coal Seam Protection Requirements for Oil and Gas Wells – Submission of Dated Mine Plan Maps and FAQ's

Attached is a copy of a memorandum which the Division of Oil and Gas (DOG) has simultaneously distributed to active oil and gas operators in Indiana. The purpose for the attached memo is to clarify the requirements for coal seam protection under the Oil and Gas Act (IC 14-37) as they apply to new wells drilled through coal-bearing formations.

While explained in greater detail in the attached memorandum to oil and gas operators, there are basically three (3) standards of protection that apply to new oil or gas wells drilled through commercially mineable coal resources. The standards of protection vary depending on whether the proposed well is to be drilled:

1. Within the boundaries of an active or inactive underground coal mine regulated by the Division of Reclamation under IC 14-34;
2. Within an area for which a dated mine plan map has been submitted to the DOG; or
3. Outside the boundary of any area identified under 1 or 2 above, but where the well will be drilled through a commercially mineable coal resource.

The primary purpose of this memo is to address the requirements for coal owners and operators when submitting dated mine plan maps to the DOG as provided under the Oil and Gas Act at IC 14-37-7-4(a)(2) and our rules at 312 IAC 16-5-4(b). We've also attempted to provide answers to what we expect will be the more frequently asked questions regarding this process.

Additionally, with the changes in the coal industry over time, some of the mine plan maps we now have on file appear to be outdated and may not reflect current mine plan areas. Newer companies may not be familiar with the mine plan map requirements as well.

The Division of Oil and Gas rules at 312 IAC 16-5-4(b) specifically provide that "A person engaged in the production of commercially mineable coal resources may file with the division a dated mine plan

showing the workable limits of a proposed underground mine on lands for which the person has title or a legal interest . . . " The emphasis is placed on: (1) "dated mine plan"; (2) "workable limits of a proposed underground mine"; and (3) "lands for which the person has title or a legal interest".

Having inaccurate or out-of-date mine plan maps on file with the DOG may result in unnecessary delays in the processing of an oil and gas operator's permit. It could also result in the issuance of an oil and gas well permit for an area where coal seam protection measures should have been taken in the construction of the new well, but weren't because a valid mine plan map was not submitted. Maintaining a database of outdated mine plan maps also diverts valuable DOG staff resources away from other core program responsibilities.

The following guidance is proposed to owners and operators of underground coal resources for purposes of submitting and maintaining mine plan map information with the DOG:

1. Effective September 1, 2009, all maps on file with the DOG dated prior to January 1, 2004, will be considered out-of-date and removed from our database. Before removing a map from the database, the DOG will send a separate letter to the last known address of the coal owner/operator notifying them of the opportunity to submit an updated mine plan. A new map should be submitted within thirty (30) days to avert the database removal.
2. Operators with maps on file with the DOG dated after January 1, 2004, are being requested to review their mine plan boundary maps to ensure they meet the following requirements:
 - a. The map is dated.
 - b. The map clearly shows the boundaries of the workable limits of a proposed underground mine.
 - c. A sufficient amount of lands within the boundaries of the mine plan area is owned or controlled by the coal owner or operator to support the development of an underground mine plan. The coal owner or operator is not required to identify specific lands within the mine plan area for which the person may not have acquired title or a legal interest. Evidence that sufficient control to support the delineation of the boundary of workable limits of a proposed underground mine should be affirmed through the submittal of an affidavit signed by an authorized representative of the coal owner or operator.
 - d. Name, address and telephone number of the person to contact regarding the mine plan.
3. In lieu of submitting a paper copy of the mine plan map, the DOG would prefer that coal owners and operators provide us with a digital map file depicting the boundaries of the mine plan areas. This information would then be entered into a secure file server visible only to designated employees of the Division of Oil and Gas. The digital map file information shall be compatible with ArcMap[®] GIS software by ESRI. Frequently used CAD programs such as AutoCAD and Microstation are both compatible with ArcMap[®].

4. The DOG recommends that underground coal owners and operators review their mine plan maps on file with us and update them on an annual basis. The contact person for the coal owner or operator should also be updated. If no changes have occurred since the last update, a letter indicating that there are no changes to the mine plan maps or contact persons is appreciated so that we know that the information remains current.
5. Mine plan maps more than five (5) years old will be routinely removed from the database unless written confirmation is received from the coal owner or operator indicating that the mine plan maps continue to be current.

Frequently Asked Questions

Q. What are the requirements for coal seam protection that apply to new well construction?

A. Basically, the Oil and Gas Act (IC 14-37) establishes three (3) standards of protection when wells are proposed to be drilled through commercially mineable coal resources. The standards depend upon the proximity of the proposed well to actual or planned underground coal mining operations:

- Wells proposed within the permit boundary of an active or inactive underground coal mine are required to be constructed with a separate coal protective string of casing unless a waiver is obtained from the Director of the DOG and the operator of the underground coal mining operation.
- Wells drilled outside the boundary of an underground permit area, but inside the boundary of a mine plan area that has been documented with the DOG by the owner or operator of underground coal mining operations are required to be protected by insuring that the production string of casing is properly centralized in the drilled hole and cemented through the coal seam proposed for underground mining. Evidence of proper cementing must be documented by a sonic cement bond-variable density well log run by the oil and gas well operator.
- All other wells drilled through commercially mineable coal resources shall be protected by a production string of casing that is properly centralized in the drilled hole and cemented through the commercially mineable coal seam.

Q. How does an oil and gas operator know whether a proposed well is located within the boundary of a permitted underground mine or within the boundary of a mine plan area?

A. Prior to issuing a permit for an oil or gas well, the DOG will access the Division of Reclamation website and determine whether the well is located within the boundaries of an active or inactive coal mining operation permit area. Additionally, the DOG will review its database of mine plan maps submitted by coal owners or operators to determine whether the proposed well is located within a current mine plan area. At the time the permit is issued, the DOG will notify the well permittee that they are responsible for contacting the coal owner or operator to ensure that the appropriate coal seam protection requirements under the Oil and Gas Act are met.

Q. Will the mine plan map submitted by a coal owner or operator be maintained as confidential by the Division of Oil and Gas?

A. No. This information is not required to be held confidential by the DOG. Any interested person has the right to inspect these mine plan maps.

Q. Why is the Division of Oil and Gas providing coal owners and operators with the option to submit the mine plan boundary information in digital format rather than a physical map?

A. There are several advantages to receiving this information digitally. Through the use of CAD files compatible with ArcMap[®], the Division of Oil and Gas will be able to more accurately determine whether a proposed well is within the boundary of a valid mine plan area. The review will be able to be performed in a timelier manner. Updating the boundary of mine plan areas will be easier and save physical map storage space in the DOG Office. Keeping the digital shape file information on a secure file server ensures that the information is directly accessible only by authorized employees of the Division of Oil and Gas. While the mine plan boundary information cannot be maintained as confidential, any requests for access to the digital information will be granted only after approval from the Director of the Division of Oil and Gas.

Q. What format will the Division of Oil and Gas be using to store the digital data?

A. Data will be stored as ARCMAP 9.3, NAD83, meters. If the mine plan boundary data is already in this format, it may be submitted without any type of conversion.

Q. What information needs to accompany our digital map data submitted to the Division of Oil and Gas?

A. The following should accompany the digital map data so that it can be accurately imported into our GIS management program:

1. Compatible formats include AutoCAD DWG and DXF files, and MicroStation DGN files as well as ARCMAP shape files. The following metadata should also accompany your submittal:

- a. The CAD program and version used to create your map (i.e. AutoCAD 2009);
- b. Coordinate system/zone (i.e. UTM, zone 16; State Plane, Indiana West);
- c. Datum (i.e. NAD 83; NAD 27);
- d. Units (i.e. feet; meters); and
- e. Type of coverage (polygon; line, etc.).

2. The name, address, telephone number of the person to contact if there are questions or problems with the data.

3. An affidavit signed by a responsible person certifying that the boundaries depicted in the digital map files submitted on _____ (date) meet the following criteria:

- a. The boundaries depict the workable limits of underground mining operations proposed by _____ (Company name);
- b. _____ (Company name) currently owns or controls a sufficient amount of the acreage within the depicted boundaries to support the development of an underground mine; and
- c. The coal seam(s) present within the mine plan boundaries are of sufficient thickness, depth, and quality to support the economic development of an underground mine.

Q. Will the Division of Oil and Gas notify coal owners or operators that a permit for an oil or gas well has been issued near their operations?

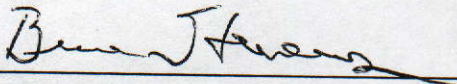
A. There is no statutory requirement for the Division of Oil and Gas to notify a coal owner or operator that a permit has been received or has been issued for an oil or gas well located within the boundaries of a mine plan area. Whenever a permit is issued for a well within a permitted mine boundary or valid mine plan area, the DOG notifies the oil and gas permittee that they need to contact the coal owner or operator to ensure that the appropriate coal seam protection measures are taken at the time the well is drilled or completed. It is the well permittee's responsibility to contact the coal owner or operator. As a matter of courtesy, the DOG attempts to notify coal owners or operators at the time a permit is issued when the well is located within the boundary of a valid mine plan area. Any person may access our "Weekly Permits List" from the home page of our website at <http://www.in.gov/dnr/dnroil/>. This information is updated weekly.

Please direct any questions regarding this document to either of the following Division of Oil and Gas employees:

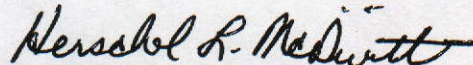
Herschel McDivitt at hmcdivitt@dnr.in.gov, or by phone at (317) 232-4058; or

Mona Nemecek at mnemecek@dnr.in.gov or by phone at (317) 232-0045

Greg Schrader, Technical Liaison, at gschrader@dnr.in.gov or by phone at (317) 234-5252



Bruce Stevens, Director
Division of Reclamation



Herschel L. McDivitt, Director
Division of Oil and Gas